



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,509	09/17/2003	Hisashi Tsukamoto	Q137-US9	5825
31815	7590	05/17/2007	EXAMINER	
MARY ELIZABETH BUSH			YUAN, DAH WEI D	
QUALLION LLC				
P.O. BOX 923127			ART UNIT	PAPER NUMBER
SYLMAR, CA 91392-3127			1745	
			MAIL DATE	DELIVERY MODE
			05/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,509	Applicant(s) TSUKAMOTO ET AL.	
	Examiner Dah-Wei D. Yuan	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 58,59 and 66-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 58,59 and 66-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09172003,05112004,07092004</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1745

**ELECTRIC STORAGE BATTERY CONSTRUCTION AND METHOD OF
MANUFACTURE**

Examiner: Yuan

S.N. 10/665,509

Art Unit: 1745

May 11, 2007

Election/Restrictions

1. Applicant's election with traverse of Group III-4, claims 58,59, in Paper filed December 20, 2007 is acknowledged. Claims 1-57,60-65 were canceled. Claims 66-87 were added.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 58,59,66-87 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The subject matter "electrically conductive terminal pin being electrically insulated from the case" is critical or essential to the practice of the invention, but not included in the claim, is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). In the instant specification, the pin needs to be insulated from the case by dielectric disks (16,18) and a glass hollow cylinder (20) to prevent short-circuiting in the battery. See page 6, originally filed claim 58.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1745

5. Claims 66-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 66 recites the limitation "a flat portion of the tab" in Line 2. Claim 67 recites the limitation "such that the tab extends from a first location" in Line 2. Claim 68 recites the limitation "the tab is not connected" in Line 1. Claim 69 recites the limitation "second end cap is adjacent to the tab" in Line 2. There are insufficient antecedent bases for these limitations in the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 58,59,70,71,84,86,87 are rejected under 35 U.S.C. 102(e) as being anticipated by Teramoto et al. (US 5,501,916).

With respect to claims 58,70, Teramoto et al. disclose a method of forming a lithium battery comprising arranging the positive electrode in electrical communication with a winding core (48) (pin), insulating the negative electrode from the core, spirally winding the electrode around the core, transporting the electrolyte through the opening of the battery case and sealing the opening with the battery lid (47). The winding core extends through an end cap (47) that is electrically insulated from the case (45). See Example 2 and Figure 9.

Art Unit: 1745

With respect to claim 59, Teramoto et al. disclose the electrolyte is injected into the case before the battery cap is sealed. See Example 2.

With respect to claim 71, the spiral wound electrodes includes a separator (43). See Example 2.

With respect to claim 84, Teramoto et al. teach the positive electrode is in electrical commutation with the terminal core via a weld (52). See Example 2.

With respect to claim 86, Teramoto et al. teach the end cap is caulked in position by an insulating gasket coated with asphalt. See Example 2.

With respect to claim 87, Teramoto et al. teach the use of a nickel-plated iron battery case. See Example 2.

8. Claim 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) as applied to claims 58,59,70,71,84,86,87 above, and further in view of Cogan (US 5,755,759).

Teramoto et al. teach a method of forming a lithium battery as described above in Paragraph 7. However, Teramoto et al. do not disclose the use of PtIr alloy as the pin. Cogan teaches a biomedical device wherein the wire electrode is made of PtIr alloy because it can record or stimulate physiological function. See Column 3, Lines 43-56. Therefore, it would have been obvious to one of ordinary skill in the art to use PtIr alloy as the pin onto the battery of Teramoto, because Cogan teaches the alloy can be used in implantable medical device.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 58,59,66-87 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 66-91 of copending Application No. 10/666,379. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim the process of forming a

battery that will have to be hermetically sealed by the end cap to prevent the degradation of the electrodes and electrolyte.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan
May 11, 2007



DAH-WEI YUAN
PRIMARY EXAMINER